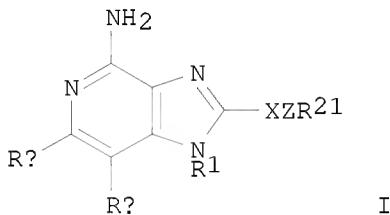


This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d abs bib fhitstr 1-11 14

L4 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
GI



AB Title compds. [I; Z = C:NOR22, C(R24)[N(OR22)(YR23)]; X = bond, alkylene, alkenylene; R21, R22, R23 = H, (substituted) alkyl, alkenyl, aryl, aralkenyl, aryl, heteroaryl, etc.; R24 = H, alkyl, Ph; Ra, Rb = H, halo, alkyl, alkenyl, alkoxy, alkylthio, amino; RaRb = atoms to form a fused (substituted) cyclohexene, tetrahydropyridine ring; R1 = H, noninterfering substituent; with provisos], were prepared for treatment of cancer and viral infection (no data). Thus, 2-chloromethyl-1-(2-methylpropyl)-1H-imidazo[4,5-c]quinolin-4-amine (preparation given), N,O-dimethylhydroxylamine hydrochloride, and Et₃N were heated together in DMF for 3 days at 50° to give 1-(2-methylpropyl)-2-[[methoxy(methyl)amino]methyl]-1H-imidazo[4,5-c]quinolin-4-amine trifluoroacetate.

AN 2006:817875 CAPLUS

DN 145:230631

TI Preparation of oxime and hydroxylamine substituted (fused) imidazopyridines as cytokine biosynthesis inducers.

IN Kshirsagar, Tushar A.; Lundquist, Gregory D., Jr.; Dellaria, Joseph F., Jr.; Radmer, Matthew R.; Zimmermann, Bernhard M.

PA 3M Innovative Properties Company, USA

SO PCT Int. Appl., 165pp.

CODEN: PIXXD2

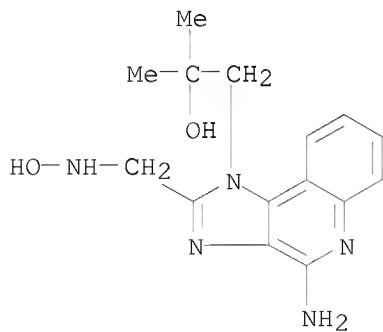
DT Patent

LA English

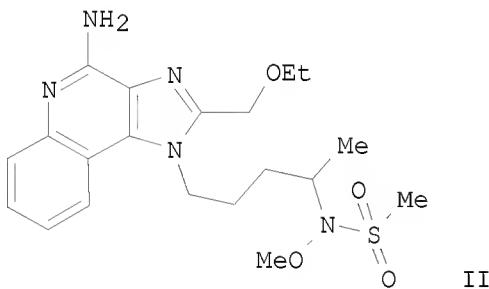
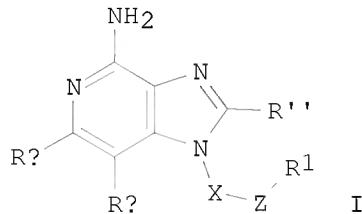
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006086634	A2	20060817	WO 2006-US4737	20060210
	WO 2006086634	A3	20070809		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,				

VN, YU, ZA, ZM, ZW
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
 IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
 CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
 GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
 KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA
 AU 2006213746 A1 20060817 AU 2006-213746 20060210
 CA 2597587 A1 20060817 CA 2006-2597587 20060210
 EP 1846405 A2 20071024 EP 2006-720606 20060210
 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
 IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL,
 BA, HR, MK, YU
 JP 2008530113 T 20080807 JP 2007-555245 20060210
 WO 2007092641 A2 20070816 WO 2007-US3797 20070209
 WO 2007092641 A3 20080821
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
 CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
 GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN,
 KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK,
 MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
 RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT,
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 GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
 KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA
 US 20090062328 A1 20090305 US 2008-884153 20080923
 PRAI US 2005-652209P P 20050211
 WO 2006-US4737 W 20060210
 US 2006-743437P P 20060308
 OS CASREACT 145:230631; MARPAT 145:230631
 IT 1026038-50-5
 RL: PRPH (Prophetic)
 (Preparation of oxime and hydroxylamine substituted (fused)
 imidazopyridines as cytokine biosynthesis inducers.)
 RN 1026038-50-5 CAPLUS
 CN 1H-Imidazo[4,5-c]quinoline-1-ethanol,
 4-amino-2-[(hydroxyamino)methyl]-α,α-dimethyl- (CA INDEX
 NAME)



L4 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
GI



AB Title compds. [I; Z = -C(:N-OR2)- or CH-N(OR2)(YR3); X = CHR9,-CH(R9)-alk(en)ylene-, etc.; R9 = H, alkyl; R1 = H, (un)substituted alkyl, alkylene/hetero/aryl, etc.; R2, R3 = independently H, (un)substituted alk(en)yl, hetero/aryl, hetero/arylkylene, etc.; Y = a bond, C:O, C:S, SO₂, etc.; RA, RB = independently H, halo, alk(en)yl, etc.; RACCRB = (un)substituted fused hetero/aryl, fused 5-7-membered saturated ring], were prepared as immunomodulators for inducing cytokine biosynthesis in animals and in the treatment of diseases including viral and neoplastic diseases. For example, reacting 5-[4-Amino-2-(ethoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl]pentan-2-one with NH₂OH•HCl in the presence of NaBH₃CN/AcOH/EtOH, and substitution with mesyl anhydride gave imidazoquinoline II (m.p. = 146-148°). Certain I may modulate cytokine biosynthesis by inhibiting production of tumor necrosis factor TNF-α when tested in mouse cells (no data).

AN 2005:493478 CAPLUS

DN 143:43875

TI Preparation of hydroxylamine and oxime substituted imidazoquinolines, imidazopyridines, and imidazonaphthyridines as inducers of cytokine biosynthesis for treatment of viral and neoplastic diseases

IN Krepinski, Larry R.; Dellaria, Joseph F., Jr.; Duffy, Daniel E.; Amos, David T.; Zimmermann, Bernhard M.; Squire, David J.; Marszalek, Gregory J.; Heppner, Philip D.; Kshirsagar, Tushar A.

PA 3M Innovative Properties Company, USA

SO PCT Int. Appl., 305 pp.

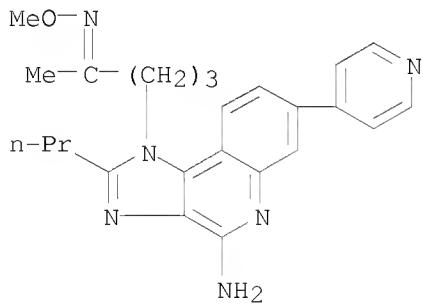
CODEN: PIXXD2

DT Patent

LA English

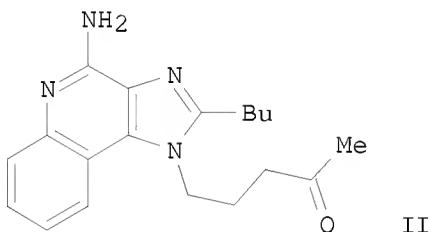
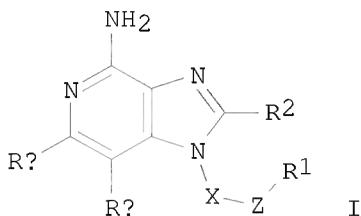
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005051324	A2	20050609	WO 2004-US39673	20041124
	WO 2005051324	A3	20060105		
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	AU 2004293096	A1	20050609	AU 2004-293096	20041124
	CA 2547085	A1	20050609	CA 2004-2547085	20041124
	EP 1686992	A2	20060809	EP 2004-812235	20041124
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
	CN 1905874	A	20070131	CN 2004-80040953	20041124
	JP 2007512349	T	20070517	JP 2006-541442	20041124
	US 20070099901	A1	20070503	US 2006-595859	20060518
	IN 2006CN01847	A	20070608	IN 2006-CN1847	20060525
	ZA 2006005216	A	20070425	ZA 2006-5216	20060623
PRAI	US 2003-524961P	P	20031125		
	US 2004-580139P	P	20040616		
	US 2004-581293P	P	20040618		
	WO 2004-US39673	W	20041124		
OS	CASREACT 143:43875; MARPAT 143:43875				
IT	1045154-07-1				
	RL: PRPH (Prophetic) (Preparation of hydroxylamine and oxime substituted imidazoquinolines, imidazopyridines, and imidazonaphthyridines as inducers of cytokine biosynthesis for treatment of viral and neoplastic diseases)				
RN	1045154-07-1 CAPLUS				
CN	2-Pentanone, 5-[4-amino-2-propyl-7-(4-pyridinyl)-1H-imidazo[4,5-c]quinolin-1-yl]-, O-methyloxime (CA INDEX NAME)				



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
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AB Title compds. [I; X = alkylene optionally interrupted by one or more -O-; Z = C(:O)O-, -C(OR3)2-; R1 = H, (un)substituted alkyl, alkylene/aryl, alkylene/heteroaryl; Q = O, S; R3 = (un)substituted alkyl, alkylene/aryl, alkylene/heteroaryl; R2 = H, (un)substituted alk(en/yn)yl, hetero/aryl, alkylenealkyl, etc.; RA, RB = independently H, halo, alk(en)yl, alkoxy, alkylthio, NH₂ and derivs.; or RACCRB = (un)substituted fused aryl ring or fused 5-7-membered saturated ring; and their pharmaceutically acceptable salts], were prepared as immunomodulators for inducing cytokine biosynthesis in animals and in the treatment of diseases including viral and neoplastic diseases. For example, II was prepared by reacting 4-(2-Butyl-1H-imidazo[4,5-c]quinolin-1-yl)butyraldehyde (preparation given) with MeMgBr, followed by oxidation, reductive amination of the ketone, oxidation with m-CPBA/reaction with NH₄OH. I have been found to induce cytokine biosynthesis by inhibiting production of tumor necrosis factor TNF- α when tested on an in vitro human blood cell system (no data).

AN 2005:490270 CAPLUS

DN 143:26611

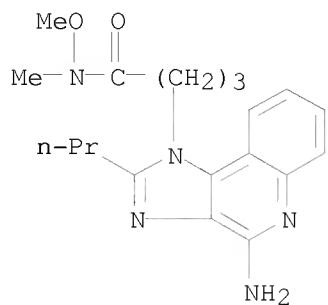
TI Preparation of oxime substituted imidazo-containing compounds, particularly imidazoquinolines, as inducers of cytokine biosynthesis for treatment of viral and neoplastic diseases

IN Krepski, Larry R.; Dellaria, Joseph F., Jr.; Duffy, Daniel E.; Radmer, Matthew R.; Amos, David T.

PA 3M Innovative Properties Company, USA

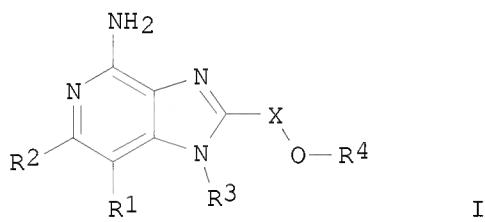
SO PCT Int. Appl., 200 pp.

CODEN: PIXXD2					
DT	Patent				
LA	English				
FAN.CNT	2				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005051317	A2	20050609	WO 2004-US39512	20041124
	WO 2005051317	A3	20060511		
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	AU 2004293078	A1	20050609	AU 2004-293078	20041124
	CA 2547020	A1	20050609	CA 2004-2547020	20041124
	EP 1687307	A2	20060809	EP 2004-812098	20041124
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
	BR 2004016936	A	20070116	BR 2004-16936	20041124
	CN 1926138	A	20070307	CN 2004-80040954	20041124
	JP 2007512370	T	20070517	JP 2006-541697	20041124
	SG 148201	A1	20081231	SG 2008-8728	20041124
	US 20070072893	A1	20070329	US 2006-595959	20060522
	MX 2006005910	A	20060823	MX 2006-5910	20060524
	IN 2006CN01848	A	20070608	IN 2006-CN1848	20060525
	KR 2006125818	A	20061206	KR 2006-712734	20060623
	ZA 2006005216	A	20070425	ZA 2006-5216	20060623
PRAI	US 2003-524961P	P	20031125		
	US 2004-580139P	P	20040616		
	WO 2004-US39512	W	20041124		
OS	CASREACT 143:26611; MARPAT 143:26611				
IT	845638-60-0P, 4-(4-Amino-2-propyl-1H-imidazo[4,5-c]quinolin-1-yl)- N-methoxy-N-methylbutyramide RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (drug candidate; preparation of oxime substituted imidazoquinolines as inducers of cytokine biosynthesis for treatment of viral and neoplastic disease)				
RN	845638-60-0 CAPLUS				
CN	1H-Imidazo[4,5-c]quinoline-1-butanamide, 4-amino-N-methoxy-N-methyl-2-propyl- (CA INDEX NAME)				

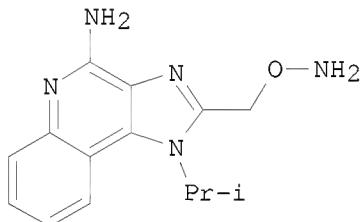


RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
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I



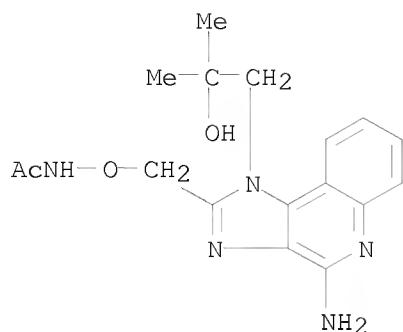
II

AB Title compds. I [X = alkylene, alkenylene; R1 and R2 independently = H, halo, alkoxy, etc. or R1 and R2 together = (un)substituted fused-aryl or -heteroaryl ring, fused 5 to 7-membered (un)substituted-saturated ring optionally containing one heteroatom (N or S); R3 = H or non-interfering substituents; R4 = (un)substituted amine, heterocycle containing at least one nitrogen atom and optionally sulfur] and their pharmaceutically acceptable salts, are prepared and disclosed as antitumor and antiviral agents. Thus, e.g., II was prepared by cyclization of N4-(2-methylpropyl)quinoline-3,4-diamine with chloroacetyl chloride to the resp. imidazolyl quinoline intermediate, which was aminated to give 2-chloromethyl-1-(2-methylpropyl)-1H-imidazo[4,5-c]quinolin-4-amine (III). III was then reacted with N-hydroxypthalimide to provide the

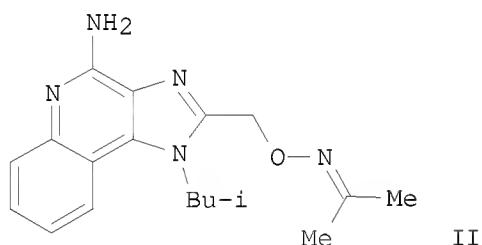
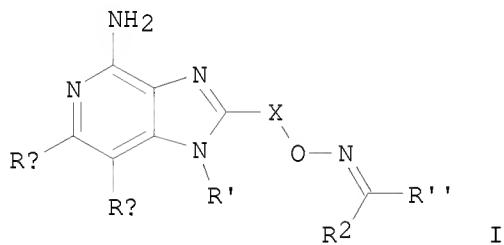
N-phthalimide protected hydroxylamine derivative which is deprotected using hydrazine and then converted into its HCl salt. The ability of I to induce cytokine biosynthesis was evaluated and selected compds. of the invention may display inhibition of tumor necrosis factor α (TNF- α) (no data given). I as inhibitor of tumor necrosis factor α should prove useful in the treatment of neoplastic and viral diseases.

AN 2005:470254 CAPLUS
 DN 143:26605
 TI Preparation of imidazolyl hydroxylamine derivatives as antitumor and antiviral agents
 IN Kshirsagar, Tushar A.; Lundquist, Gregory D., Jr.; Amos, David T.; Dellaria, Joseph F., Jr.; Zimmermann, Bernhard M.; Heppner, Philip D.
 PA 3M Innovative Properties Company, USA
 SO PCT Int. Appl., 230 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005048945	A2	20050602	WO 2004-US38033	20041112
	WO 2005048945	A3	20060323		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2004291122	A1	20050602	AU 2004-291122	20041112
	CA 2545825	A1	20050602	CA 2004-2545825	20041112
	EP 1682544	A2	20060726	EP 2004-810969	20041112
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR, IS, YU				
	CN 1906192	A	20070131	CN 2004-80040435	20041112
	JP 2007511535	T	20070510	JP 2006-539957	20041112
	US 20090105295	A1	20090423	US 2006-595790	20060511
	IN 2006CN01680	A	20070824	IN 2006-CN1680	20060512
PRAI	US 2003-520215P	P	20031114		
	WO 2004-US38033	W	20041112		
OS	CASREACT 143:26605; MARPAT 143:26605				
IT	852718-30-0				
	RL: PRPH (Prophetic) (Preparation of imidazolyl hydroxylamine derivatives as antitumor and antiviral agents)				
RN	852718-30-0 CAPLUS				
CN	Acetamide, N-[4-amino-1-(2-hydroxy-2-methylpropyl)-1H-imidazo[4,5-c]quinolin-2-yl]methoxy- (CA INDEX NAME)				



L4 ANSWER 5 OF 11 CPLUS COPYRIGHT 2009 ACS on STN
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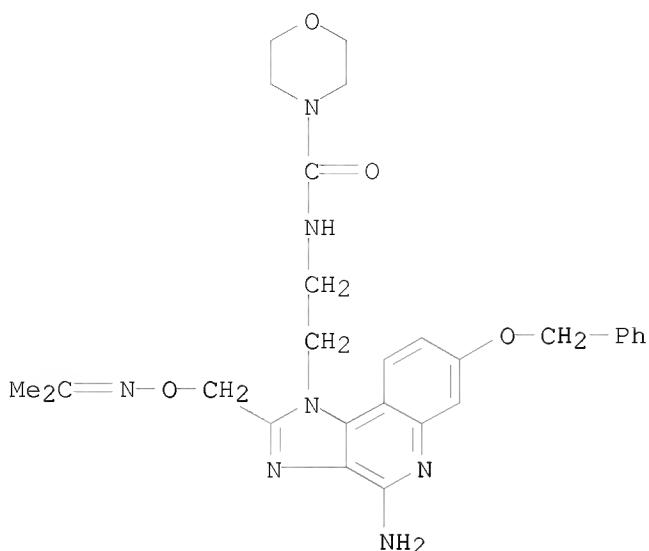


AB Title compds. [I; X = alk(en)ylene; RA, RB = independently H, halo, alk(en)yl, alkoxy, alkylthio, NH₂ and derivs.; RACH-CHRB = (un)substituted fused hetero/aryl ring; RACH-CHRB = (un)substituted fused 5-7-membered saturated ring; R₂, R'' = independently H, (un)substituted alk(en)yl, hetero/aryl, hetero/arylalkylenyl, heterocyclalkylenyl; or R₂R'' = (un)substituted 4-9-membered ring; R' = H, non-interfering substituent], were prepared as immunomodulators for inducing cytokine biosynthesis in animals and in the treatment of diseases including viral and neoplastic diseases. A 5-step synthesis for II is given. I may modulate cytokine biosynthesis by inhibiting production of tumor necrosis factor TNF- α

when tested in mouse cells (no data).

AN 2005:470244 CAPLUS
 DN 143:26604
 TI Preparation of oxime substituted imidazo-containing compounds as inducers of cytokine biosynthesis for treatment of viral and neoplastic disease
 IN Kshirsagar, Tushar A.; Lundquist, Gregory D., Jr.; Amos, David T.; Dellaria, Joseph F., Jr.; Zimmermann, Bernhard M.; Heppner, Philip D.
 PA 3M Innovative Properties Company, USA
 SO PCT Int. Appl., 316 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005048933	A2	20050602	WO 2004-US37854	20041112
	WO 2005048933	A3	20051201		
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	AU 2004291101	A1	20050602	AU 2004-291101	20041112
	CA 2545774	A1	20050602	CA 2004-2545774	20041112
	EP 1685129	A2	20060802	EP 2004-810872	20041112
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
	CN 1906193	A	20070131	CN 2004-80040434	20041112
	JP 2007511527	T	20070510	JP 2006-539911	20041112
	US 20090042925	A1	20090212	US 2006-595792	20060511
	IN 2006CN01669	A	20070810	IN 2006-CN1669	20060512
PRAI	US 2003-520418P	P	20031114		
	WO 2004-US37854	W	20041112		
OS	CASREACT 143:26604; MARPAT 143:26604				
IT	1044959-53-6				
	RL: PRPH (Prophetic)				
	(Preparation of oxime substituted imidazo-containing compounds as inducers of cytokine biosynthesis for treatment of viral and neoplastic disease)				
RN	1044959-53-6 CAPLUS				
CN	INDEX NAME NOT YET ASSIGNED				



RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. [I; X = CHR₂, CHR₂A; A = (un)substituted alkylene, alkenylene; Y = a bond, C(:O), C(:S), SO₂, COO, CONH and derivs., etc.; R₁, R' = independently H, (un)substituted alk(en)yl, aryl, etc.; RA, RB = independently H, halo, alk(en)yl, alkoxy, alkylthio, NH₂ and derivs.; or RACCRB = (un)substituted fused hetero/aryl, fused 5- to 7-membered saturated ring; R'' = H, non-interfering substituent; and their pharmaceutically acceptable salts], were prepared as immunomodulators for inducing cytokine biosynthesis in animals and in the treatment of diseases including viral and neoplastic diseases. For example, reacting 1-[3-(aminoxy)propyl]-2-propyl-1H-imidazo[4,5-c]quinolin-4-amine (preparation given) with cyclopropanecarbonyl chloride gave title compound II (m.p. = 103-105°). Thus, induced interferon and tumor necrosis factor in human cells (no data).

AN 2005:177837 CAPLUS

DN 142:280205

TI Preparation of hydroxylamine substituted imidazo-containing compounds as inducers of cytokine biosynthesis for treatment of viral and neoplastic disease

IN Kshirsagar, Tushar A.; Amos, David T.; Dellaria, Joseph F., Jr.; Heppner, Philip D.; Langer, Scott E.; Zimmermann, Bernhard M.

PA 3M Innovative Properties Company, USA

SO PCT Int. Appl., 254 pp.

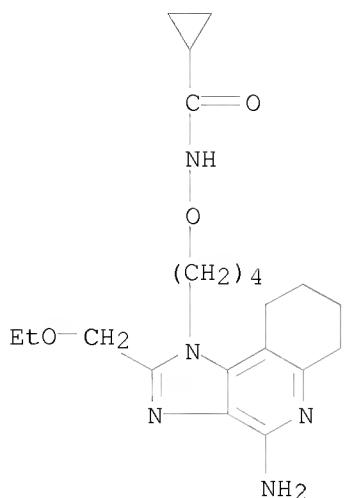
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005018556	A2	20050303	WO 2004-US26158	20040812
	WO 2005018556	A3	20050929		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2004266658	A1	20050303	AU 2004-266658	20040812
	CA 2535120	A1	20050303	CA 2004-2535120	20040812
	EP 1653955	A2	20060510	EP 2004-780922	20040812
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	CN 1835750	A	20060920	CN 2004-80023051	20040812
	BR 2004013558	A	20061017	BR 2004-13558	20040812
	JP 2007502293	T	20070208	JP 2006-523371	20040812
	US 20080114019	A1	20080515	US 2006-595058	20060123
	MX 2006001674	A	20060512	MX 2006-1674	20060210
PRAI	US 2003-494605P	P	20030812		
	US 2003-494608P	P	20030812		
	WO 2004-US26158	W	20040812		
OS	CASREACT 142:280205; MARPAT 142:280205				
IT	1044643-63-1				
	RL: PRPH (Prophetic)				
	(Preparation of hydroxylamine substituted imidazo-containing compounds as inducers of cytokine biosynthesis for treatment of viral and neoplastic disease)				
RN	1044643-63-1 CAPLUS				
CN	Cyclopropanecarboxamide, N-[4-[4-amino-2-(ethoxymethyl)-6,7,8,9-tetrahydro-1H-imidazo[4,5-c]quinolin-1-yl]butoxy]- (CA INDEX NAME)				



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. [I; X = CHR₂A; A = alkylene, alkenylene optionally interrupted by one or more O; R₁, R' = independently H, (un)substituted alk(en)yl, hetero/aryl, hetero/arylalkylenyl, heterocyclyl, heterocyclylalkylenyl, etc.; R_A, R_B = independently H, halo, alk(en)yl, alkoxy, alkylthio, NH₂ and derivs.; or RACCRB = (un)substituted fused hetero/aryl, fused 5- to 7-membered saturated ring; R'' = H, non-interfering substituent; and their pharmaceutically acceptable salts], were prepared as immunomodulators for inducing cytokine biosynthesis in animals and in the treatment of diseases including viral and neoplastic diseases. Thus, reacting 4-fluorobenzaldehyde with 1-[3-(aminoxy)propyl]-2-propyl-1H-imidazo[4,5-c]quinolin-4-amine (preparation given) in MeOH gave oxime II. I induced interferon and tumor necrosis factor in human cells (no data).

AN 2005:177833 CAPLUS

DN 142:280204

TI Preparation of oxime substituted imidazo-containing compounds as inducers of cytokine biosynthesis for treatment of viral and neoplastic disease

IN Kshirsagar, Tushar; Amos, David T.; Dellaria, Joseph F., Jr.; Heppner, Philip D.; Langer, Scott E.; Zimmermann, Bernhard M.

PA 3M Innovative Properties Company, USA

SO PCT Int. Appl., 348 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

PATENT NO.

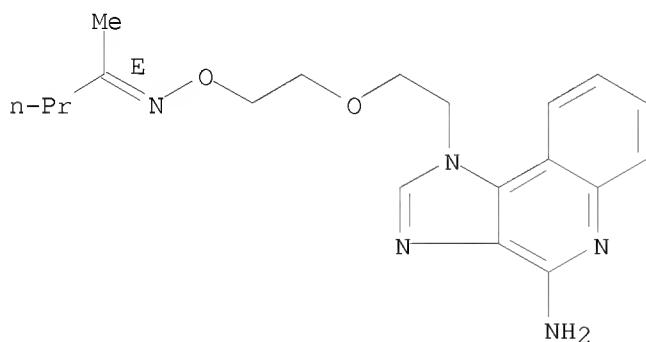
KIND DATE

APPLICATION NO.

DATE

PI	WO 2005018551	A2	20050303	WO 2004-US26065	20040812
	WO 2005018551	A3	20060511		
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	AU 2004266641	A1	20050303	AU 2004-266641	20040812
	CA 2535117	A1	20050303	CA 2004-2535117	20040812
	EP 1653914	A2	20060510	EP 2004-780839	20040812
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	BR 2004012902	A	20060926	BR 2004-12902	20040812
	JP 2007502288	T	20070208	JP 2006-523340	20040812
	CN 101094670	A	20071226	CN 2004-80023366	20040812
	US 20070066639	A1	20070322	US 2006-595065	20060126
	MX 2006001669	A	20060428	MX 2006-1669	20060210
	IN 2006CN00516	A	20070622	IN 2006-CN516	20060210
PRAI	US 2003-494605P	P	20030812		
	US 2003-494608P	P	20030812		
	WO 2004-US26065	W	20040812		
OS	CASREACT 142:280204; MARPAT 142:280204				
IT	1044345-61-0				
	RL: PRPH (Prophetic) (Preparation of oxime substituted imidazo-containing compounds as inducers of cytokine biosynthesis for treatment of viral and neoplastic disease)				
RN	1044345-61-0 CAPLUS				
CN	2-Pentanone, O-[2-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethoxy]ethyl]oxime, (2E)- (CA INDEX NAME)				

Double bond geometry as shown.



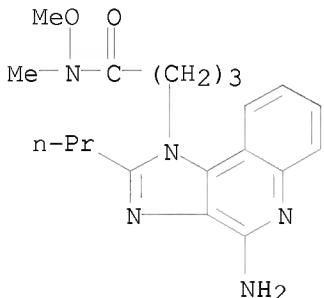
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
 AB Pharmaceutical formulations in an aqueous (preferably, sprayable) formulation including an immune response modifier (IRM), such as those chosen from imidazoquinoline amines, tetrahydroimidazoquinoline amines, imidazopyridine amines, 6,7-fused cycloalkylimidazopyridine amines, 1,2-bridged imidazoquinoline amines, imidazonaphthyridine amines, imidazotetrahydronaphthyridine amines, oxazoloquinoline amines, thiazoloquinoline amines, oxazolopyridine amines, thiazolopyridine amines, oxazolonaphthyridine amines, thiazolonaphthyridine amines, and 1H-imidazo dimers fused to pyridine amines, quinoline amines, tetrahydroquinoline amines, naphthyridine amines, or tetrahydronaphthyridine amines, are provided. In one embodiment, the aqueous formulations are advantageous for treatment and/or prevention of allergic rhinitis, viral infections, sinusitis, and asthma. For example, N-[2-[4-amino-2-(ethoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl]-1,1-dimethylethyl]methanesulfonamide (IRM 1) was prepared as a 0.375% aqueous solution capable of being nasally administered via a spray pump. The solution contained IRM 1 0.375%, CM-cellulose sodium 0.1%, benzalkonium chloride 0.02%, disodium EDTA 0.1%, L-lactic acid 1.53%, PEG 400 15%, 1N NaOH as needed for pH 4.0, and water to 100%. The IRM 1 solution (50 µL) administered to rats once 4 h before infection with humanized, non-lethal influenza virus, almost completely suppressed the virus. titer.

AN 2005:160991 CAPLUS
 DN 142:246181
 TI Formulations containing an amine-based immune response modifier
 IN Hammerbeck, David M.; Guy, Cynthia A.; Leung, Suzanne S.
 PA 3M Innovative Properties Company, USA
 SO PCT Int. Appl., 118 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005016275	A2	20050224	WO 2004-US25277	20040805
	WO 2005016275	A3	20050414		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2004264336	A1	20050224	AU 2004-264336	20040805
	CA 2534313	A1	20050224	CA 2004-2534313	20040805
	US 20050070460	A1	20050331	US 2004-911800	20040805
	EP 1651190	A2	20060503	EP 2004-780166	20040805
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
	JP 2007501252	T	20070125	JP 2006-522714	20040805

US 20070292456 A1 20071220 US 2006-595049 20060118
PRAI US 2003-493109P P 20030805
WO 2004-US25277 W 20040805
IT 845638-60-0 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(solns. containing amine-based immunomodulators)
RN 845638-60-0 CAPLUS
CN 1H-Imidazo[4,5-c]quinoline-1-butanamide,
4-amino-N-methoxy-N-methyl-2-propyl- (CA INDEX NAME)



RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
AB Methods of eliciting a toll-like receptor 8 (TLR8)-mediated cellular response are disclosed. Such methods include administration of either a TLR8 agonist or a TLR8 antagonist to an IRM (immune response modifier)-responsive cell so that the IRM compound affects at least one TLR8-mediated cellular signaling pathway. In some cases, the method may provide prophylactic or therapeutic treatment for a condition treatable by modulating a TLR8-mediated cellular pathway.

AN 2004:681403 CAPLUS

DN 141:185096

TI Methods and compositions related to IRM compounds and toll-like receptor 8

IN Gorden, Keith B.; Qiu, Xiaohong; Vasilakos, John P.

PA 3M Innovative Properties Company, USA

SO U.S. Pat. Appl. Publ., 25 pp.

CODEN: USXXCO

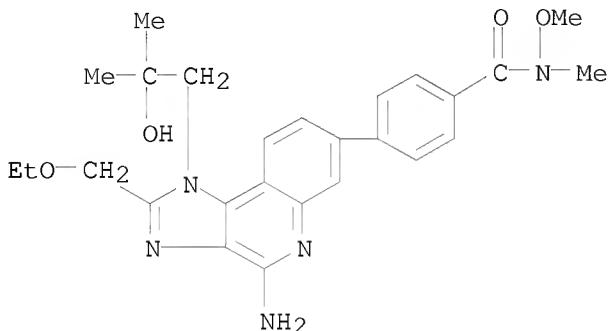
DT Patent

LA English

FAN.CNT 1

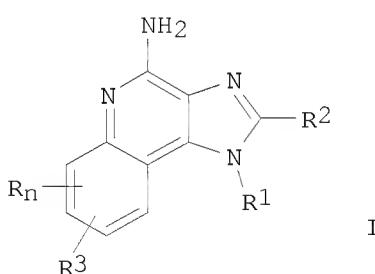
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20040162309	A1	20040819	US 2004-777310	20040212
	US 7375180	B2	20080520		
	WO 2004071459	A2	20040826	WO 2004-US4353	20040212
	WO 2004071459	A3	20050127		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI				
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,				

BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
 MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
 GQ, GW, ML, MR, NE, SN, TD, TG
 EP 1592302 A2 20051109 EP 2004-710701 20040212
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
 JP 2006517974 T 20060803 JP 2006-503575 20040212
 PRAI US 2003-447179P P 20030213
 WO 2004-US4353 W 20040212
 IT 740809-73-8
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (methods and compns. related to immune response modifier compds. and
 affecting toll-like receptor 8-mediated cellular response for
 therapeutic treatments)
 RN 740809-73-8 CAPLUS
 CN Benzamide, 4-[4-amino-2-(ethoxymethyl)-1-(2-hydroxy-2-methylpropyl)-1H-imidazo[4,5-c]quinolin-7-yl]-N-methoxy-N-methyl- (CA INDEX NAME)



RE.CNT 133 THERE ARE 133 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
 GI



AB Title compds. I (R = alkyl, alkoxy, OH, CF₃; n = 0, 1; R₁, R₂ = H, non-interfering substituent; R₃ = ArZ, aminosulfonylaryl, aminocarbonylaryl, etc.; Ar = aryl, heteroaryl; Z = bond, alkylene, alkenylene, alkynylene) which are immunomodulators, inducing cytokines biosynthesis, and inhibiting tumor necrosis factors biosynthesis, are prepared. For example, 2-butyl-1-isobutyl-7-(thiophen-3-yl)-1H-imidazo[4,5-c]quinolin-4-amine was prepared in a multi-step synthesis starting from 3-bromoaniline, tri-Et orthoformate, and Meldrum's acid. I are useful in the treatment of viral and neoplastic diseases.

AN 2004:566606 CAPLUS

DN 141:123628

TI Preparation of aryl/heteroaryl substituted imidazoquinolines as immunomodulators

IN Hays, David S.; Niwas, Shri; Kshirsagar, Tushar; Ghosh, Tarun K.; Gupta, Shalley K.; Heppner, Philip D.; Merrill, Bryon A.; Bonk, Jason D.; Danielson, Michael E.; Gerster, John F.; Haraldson, Chad A.; Johannessen, Sarah C.; Kavanagh, Maureen A.; Lindstrom, Kyle J.; Prince, Ryan B.; Radmer, Matthew R.; Rice, Michael J.; Squire, David J.; Strong, Sarah A.; Wurst, Joshua R.

PA 3M Innovative Properties Company, USA

SO PCT Int. Appl., 465 pp.

CODEN: PIXXD2

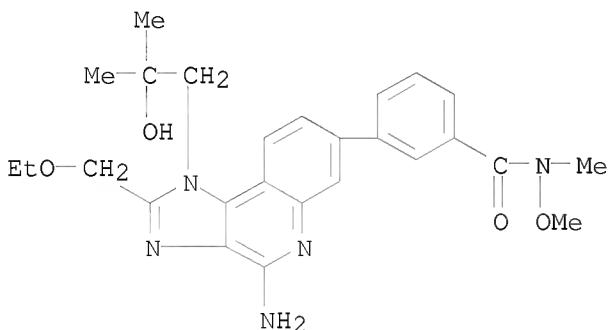
DT Patent

LA English

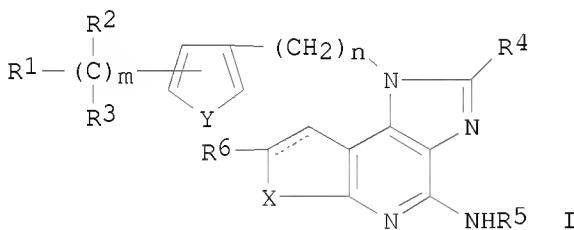
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004058759	A1	20040715	WO 2003-US40373	20031218
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2510375	A1	20040715	CA 2003-2510375	20031218
	AU 2003301052	A1	20040722	AU 2003-301052	20031218
	US 20040147543	A1	20040729	US 2003-739787	20031218
	US 7091214	B2	20060815		
	EP 1590348	A1	20051102	EP 2003-814164	20031218
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	CN 1747953	A	20060315	CN 2003-80109659	20031218
	JP 2006513212	T	20060420	JP 2004-563764	20031218
	NZ 540826	A	20080731	NZ 2003-540826	20031218
	MX 2005006740	A	20051005	MX 2005-6740	20050617
	IN 2005CN01348	A	20070727	IN 2005-CN1348	20050620
	ZA 2005005787	A	20061227	ZA 2005-5787	20050719
	US 20060111387	A1	20060525	US 2006-275553	20060113
	IN 2008CN00052	A	20080919	IN 2008-CN52	20080104
PRAI	US 2002-435889P	P	20021220		
	US 2003-516331P	P	20031031		
	US 2003-739787	A3	20031218		

WO 2003-US40373 W 20031218
 IN 2005-CN1348 A3 20050620
 OS MARPAT 141:123628
 IT 723264-71-9P
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of imidazoquinoline derivs. as immunomodulators for treatment of viral and antineoplastic diseases)
 723264-71-9 CAPLUS
 CN Benzamide, 3-[4-amino-2-(ethoxymethyl)-1-(2-hydroxy-2-methylpropyl)-1H-imidazo[4,5-c]quinolin-7-yl]-N-methoxy-N-methyl- (CA INDEX NAME)



L4 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
 GI



AB The compds. I [R1 = OR7, SO2NR8R9, CONHR8R9, NR10R11, CR12:NOH, OH, cyano; R2, R3 = H, lower alkyl; R4 = H, C1-10 linear or branched alkyl which may be substituted with ≥1 OH, lower alkyl, cycloalkyl, halo; R5 = H, lower alkyl; R6 = H, lower alkyl, lower alkoxy, halo; R7 = OH, lower alkyl, lower alkoxy; R8, R9 = H, lower alkyl; R10 = H, lower alkyl, benzyl; R11 = H, lower alkyl, benzyl, lower alkanesulfonyl, lower alkanoyl, (un)substituted carbamoyl, (un)substituted thiocarbamoyl, (un)substituted benzenesulfonyl; R12 = H, lower alkyl; m = 0, 1; n = 1-3; X = C1-3 alkylene, CH:CH; Y = S, CH:CH; dotted line represents an optional bond] or their pharmacol. acceptable salts are claimed. I induce synthesis of interferons and are useful as antiviral agents and anticancer

agents. Human PBMCs were incubated with 0.10 µg/mL 1-[2-(4-aminophenyl)ethyl]-1,6,7,8-tetrahydrocyclopenta[b]imidazo[4,5-d]pyridin-4-amine hydrochloride (preparation given) to produce 737 pg/mL interferon- α , vs. 62 pg/mL for a control incubated with 1-(2-phenylethyl)-1H-imidazo[4,5-c]quinolin-4-amine.

AN 1999:206895 CAPLUS

DN 130:291590

TI 1-(Substituted aryl)alkyl-1H-imidazopyridin-4-amines as interferon inducers

IN Kato, Hideo; Sakaguchi, Osamu; Aoyama, Makoto; Tsubouchi, Katsutoshi

PA Hokurika Pharmaceutical Co., Ltd., Japan

SO Jpn. Kokai Tokyo Koho, 78 pp.

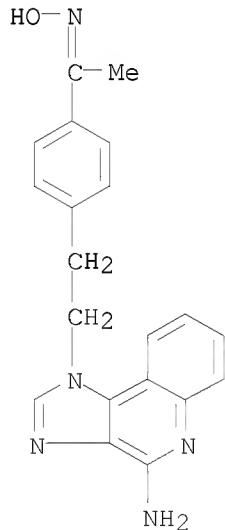
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11080156	A	19990326	JP 1997-255926	19970904
PRAI	JP 1997-255926		19970904		
OS	MARPAT 130:291590				
IT	223258-41-1P				
	RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)				
	(preparation of imidazopyridinamine derivs. as interferon inducers for anticancer and antiviral drugs)				
RN	223258-41-1 CAPLUS				
CN	Ethanone, 1-[4-[2-(4-amino-1H-imidazo[4,5-c]quinolin-1-yl)ethyl]phenyl]-, oxime (CA INDEX NAME)				



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IT 223258-41-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
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